FINAL REPORT

Limited Scope Indoor Air Quality Survey

SSMC II

for

National Oceanic & Atmospheric Administration

February 8, 2001

Interagency Agreement #: D8H01CO31200

Task: 9903

April 5, 2001

Prepared by

US Public Health Service

Division of Federal Occupational Health

Bethesda Central Office

Executive Summary

At the request of the National Oceanic & Atmospheric Administration (NOAA), Federal Occupational Health (FOH) collected indoor air quality measurements for temperature, relative humidity, carbon dioxide, carbon monoxide, and airborne fungal spores throughout Building SSMC-2, located at 1325 East-West Highway, Silver Spring, Maryland. Measurements were taken on February 28, 2001 following the methodology described below.

Temperatures throughout the building over the time period measured ranged from 68.1-79.5 ^{0}F. Indoor relative humidity ranged from 15.5-37.5%

Current guidelines of the American Society of Heating Refrigeration and Air Conditioning Engineers (ASHRAE) Standard 55-1995 (Thermal Environmental Conditions for Human Occupancy) recommend temperatures in the range of 68-75^{0}F in winter season and 73-79^{0}F summer season, along with maintaining 30 - 60% relative humidity. These ranges are based on a 10% dissatisfaction criterion.

32 of the 132 indoor temperature measurements taken were above 75 degrees farenheight. With the exception of computer rooms on the 6th and 7th floors, all relative humidity measurements were below 30% relative humidity.

Carbon dioxide measurements provide an indicator of available “fresh air” in the space. Current standards describe indoor carbon dioxide levels below 850 ppm (AIHA), or no greater than a 700 ppm differential between outside and inside air concentrations (ASHRAE 62-1999) as generally acceptable. Carbon dioxide measurements throughout the building ranged from 441-1201 ppm. Carbon dioxide measured outdoors was 425-436 ppm. Sample locations 2-8-4, and 2-9-1, 2-9-2, 2-9-3, and 2-9-4 had measurements greater than 700 ppm above outdoor measurements. 46 of the 132 measurements recorded exceeded 850 ppm CO2.

Carbon monoxide measurements recorded ranged from 0-8 ppm. One of the meters used during the survey had consistently higher readings than the other, indicating a problem with either calibration or the sensor. The permissible exposure limit for CO is 50 ppm. The "Industrial Hygienist's Guide to Indoor Air Quality Investigations" published by the American Industrial Hygiene Association, Technical Committee on Indoor Environmental Quality cites < 9 ppm average as acceptable. There were no combustion sources in the building to cause elevated CO, and outdoor measurements were 0 ppm.

With regard to microbial sampling, indoor fungal levels were generally lower than those of outdoors and fungi detected indoors were similar to those detected outdoors. *Stachybotrys chartarum* was not detected in any of the samples analyzed. Penicillium was identified in samples 2-3-2, 2-5-6, and 2-14-1.

Visual inspection of air handler units serving SSMC 3, performed on 3/6/01, found units to be clean, dry, and generally well maintained.

By comparison to a previous indoor air quality investigation of SSMC2 performed March 16, 2000 (comparable season), the temperature range has remained relatively constant (70-77^{0}F 2000; 68.1-79.5^{0}F 2001). The relative humidity range has decreased somewhat from 21.8-38.7% (2000) to 15.5-37.5% (2001).

Previous carbon dioxide measurements throughout the building ranged from 425-1146 ppm, with carbon dioxide levels exceeding 850 ppm found on floors 3,5,6,7,8,9,10,11,16,17, & 18. During this round of measurements, CO2 ranged from 441-1201 ppm, with carbon dioxide levels exceeding 850 ppm found on floors 4,5,6,7,8,9,10,12, and 16.

During the previous survey *Stachybotrys chartarum* was detected in one sample taken from the 8th floor room 8370. By comparison, none was found in air samples collected on 2/28/01.

Based upon this limited scope investigation, DFOH

1) maintains the position that the HVAC system should be checked to ensure all components are properly operating, and that fresh air is adequately distributed to the space;

2) recommends visual inspection visual inspection to detect any fungal proliferation in the areas where Penicillium was identified.

Introduction

At the request of the National Oceanic & Atmospheric Administration (NOAA), Federal Occupational Health (FOH) performed a limited scope indoor air quality investigation of Building SSMC-2, located at 1325 East-West Highway, Silver Spring, Maryland. The purpose of the investigation was to perform a second round of sampling for comparison with recognized industry standards and previous sampling of the space. The investigation took place on February 28, 2001. Evaluation methodologies and results are presented in the following report.

Evaluation Methods

Measurements of temperature, relative humidity, carbon monoxide, and carbon dioxide were taken in eight locations on each floor of the building as indicators of relative indoor air quality using a TSI Q Trak IAQ monitor, model 8550/8551. Each floor was designated into two zones on either side of the elevator lobby. Four measurements were taken in each zone in randomly selected locations on the interior and exterior of the floor. Wherever possible, locations were identical to those measured during previous surveys. A limited number of previously sampled spaces were inaccessible, therefor, adjacent locations were selected. A strategy was designed to completely sample one side of the building from top to bottom, then the other side from bottom to top. The strategy was designed to account for time of day variations in measurements, particularly carbon dioxide measurements that often increase over the workday (refer to actual sample times in data table and graphs of individual floors).

Air samples for fungal contamination were collected by a culturable method using Andersen N-6 samplers at a flow rate of 28.3 L/min. Indoor Andersen air samples were collected for 3 minutes and outdoor samples were collected for both one and three minutes. Two percent (2 %) malt extract agar (MEA) and cellulose Czapek agar (CCA) was used to recover general fungi and cellulose-loving fungi, respectively. All plates were incubated in a 25°C incubator and were examined every other day for up to 10 days to ensure the full recovery of fungi. Fungal identification was based on colony morphology, spores and conidia formation. Total fungal colonies formed on each plate were counted and recorded. Fungal levels in samples were presented as colony forming units (CFUs) per measuring unit.

Standards/Criteria

The IAQ Assessment followed general guidelines specified by the Environmental Protection Agency "Building Air Quality" Guide for Building Owners and Facility Managers, and the "Industrial Hygienist's Guide to Indoor Air Quality Investigations" published by the American Industrial Hygiene Association, Technical Committee on Indoor Environmental Quality.

ASHRAE Standard 55-1995 (Thermal Environmental Conditions for Human Occupancy) recommends temperatures in the range of 68-75^{0}F in winter season and 73-79^{0}F Summer season. These ranges are based on a 10% dissatisfaction criterion. The recommended relative humidity range is 30 - 60%.

Carbon monoxide levels should be 0-2 parts per million (ppm) above ambient, < 9 ppm average. Carbon Dioxide levels should remain < 850 ppm ("Industrial Hygienist's Guide to Indoor Air Quality Investigations" published by the American Industrial Hygiene Association, Technical Committee on Indoor Environmental Quality). ASHRAE 62-1999 recommends indoor carbon dioxide levels no greater than 700 ppm higher than outdoor levels (outdoor levels generally range from 300-500 ppm).

There are no “standards” for building microbial burden. Complaint areas are generally compared with non-complaint areas and outside air.

Results and Conclusions

Temperature, relative humidity, carbon dioxide, and carbon monoxide measurements by location are tabulated in Attachment A.

Microbial results are tabulated in Attachment B.

Temperatures throughout the building over the time period measured ranged from 68.1-79.5 ^{0}F. Indoor relative humidity ranged from 15.5-37.5%

Carbon dioxide measurements throughout the building ranged from 441-1201 ppm. Carbon dioxide measured outdoors ranged from 425-436 ppm. Carbon dioxide levels as a function of time of day were graphed to determine if levels increase over time. Graphs are located in Attachment C. Graphs show a general increase in CO2 levels throughout the late morning and early afternoon, with a slight lowering later in the afternoon.

Carbon dioxide levels as a function of time were then graphed on a floor by floor basis. These graphs are located in Attachment D, and

show various fluctuations throughout the measured period.

Carbon monoxide levels throughout the facility were ranged from 0-8 ppm. Outdoor CO measurements were 0 ppm.

With regard to microbial sampling, indoor fungal levels were generally lower than those of outdoors and fungi detected indoors were similar to those detected outdoors. *Stachybotrys chartarum* was not detected in any of the samples analyzed. Penicillium was identified in samples 2-3-2, 2-5-6, and 2-14-1.

Recommendations

Based upon this limited scope investigation, DFOH

1) maintains the position that the HVAC system should be checked to ensure all components are properly operating, and that fresh air is adequately distributed to the space;

2) recommends visual inspection visual inspection to detect any fungal proliferation in the areas where Penicillium was identified.

Attachment A

IAQ Measurements

Attachment B

Microbial Sample Results

Attachment C

CO2 vs. Time Graph

Attachment D

Floor by Floor

CO2 VS. Time Graphs

USPHS DFOH ENVIRONMENTAL MICROBIOLOGY LABORATORY

PHILADELPHIA, PA LABORATORY REPORT #NOAA-01-IAQ-2R

Client agency: National Oceanic and Atmospheric Administration, Silver Spring, MD

POIS#/task #: D8H00CO31200 / 9903

Sampling dates: 2/28/01

Dates of inoculation: 2/28/01

General location: Silver Spring, MD

Specific location: SSMC-2

Sampling technique: Air (Andersen N-6 sampler) sampling

Medium used: Malt extract agar (MEA) and cellulose Czapek agar (CCA) for fungi

Samples submitted by: J. Sobelman

Date characterization completed: 3/10/01

Air samples on MEA plates

Sample ID	Sampling Location	Air Volume (L)	Fungi on MEA @ 25º C	*Stachybotrys chartarum* *** on CCA @ 25º C
2-18-1	18th floor, room 18324	84.9	No fungal growth	Absence
2-18-2	18th floor, room 18348	84.9	CFU/m^3 < 12 No fungal growth	Absence
2-18-3	18th floor, room 18386	84.9	CFU/m^3 < 12 No fungal growth	Absence
2-18-4	18th floor, near 18ME1	84.9	CFU/m^3 < 12 1. *Cladosporium* (1*) 2. *Epicoccum* (1)	Absence
2-17-1	17th floor, room 17300, corridor outside	84.9	CFU/m^3 = 24 1. Basidiomycetes (1)	Absence
2-17-2	17th floor, at printer near 17328	84.9	CFU/m^3 = 12 No fungal growth	Absence
2-17-3	17th floor, at printer near 17392	84.9	CFU/m^3 < 12 No fungal growth	Absence
2-17-4	17th floor, room 17422	84.9	CFU/m^3 < 12 No fungal growth	Absence
2-16-1	16th floor, room 16426	84.9	CFU/m^3 < 12 No fungal growth	Absence
2-16-2	16th floor, corridor near 16323	84.9	CFU/m^3 < 12 No fungal growth	Absence
2-16-3	16th floor, room 16372	84.9	CFU/m^3 < 12 No fungal growth	Absence
2-16-4	16th floor, room 16300	84.9	CFU/m^3 < 12 No fungal growth	Absence
2-15-1	15th floor, room 15422	84.9	CFU/m^3 < 12 No fungal growth	Absence
2-15-2	15th floor, corridor near restroom	84.9	CFU/m^3 < 12 No fungal growth	Absence
2-15-3	15th floor, room 15306	84.9	CFU/m^3 < 12 No fungal growth	Absence
2-15-4	15th floor, corridor near 15351	84.9	CFU/m^3 < 12 1. Basidiomycetes (1) CFU/m^3 = 12	Absence

2-14-1	14th floor, outside room 14316	84.9	1. *Cladosporium* (1) 2. *Penicillium* (1) 3. yeast (1) CFU/m^3 = 35	Absence
2-14-2	14th floor, room 14394	84.9	No fungal growth CFU/m^3 < 12	Absence
2-14-3	14th floor, room 14360	84.9	1. *Cladosporium* (1) CFU/m^3 = 12	Absence
2-14-4	14th floor, outside 14ME1	84.9	No fungal growth CFU/m^3 < 12	Absence
2-13-1	13th floor, corridor next to room 13316	84.9	No fungal growth CFU/m^3 < 12	Absence
2-13-2	13th floor, room 13370	84.9	No fungal growth CFU/m^3 < 12	Absence
2-13-3	13th floor, corridor near 13ME1	84.9	No fungal growth CFU/m^3 < 12	Absence
2-13-4	13th floor, corridor near 13323	84.9	No fungal growth CFU/m^3 < 12	Absence
2-12-1	12th floor, room 12320	84.9	1. *Cladosporium* (1) CFU/m^3 = 12	Absence
2-12-2	12th floor, room 12350	84.9	No fungal growth CFU/m^3 < 12	Absence
2-12-4	12th floor, corridor near 12438	84.9	No fungal growth CFU/m^3 < 12	Absence
2-11-1	11th floor, room 11334	84.9	1. *Cladosporium* (1) 2. *Paecilomyces* (1) CFU/m^3 = 24	Absence
2-11-2	11th floor, corridor by 11376	84.9	1. *Alternaria* (1) CFU/m^3 = 12	Absence
2-11-3	11th floor, room 11404	84.9	No fungal growth CFU/m^3 < 12	Absence
2-11-4	11th floor, outside 11ME1	84.9	No fungal growth CFU/m^3 < 12	Absence

Sample ID	**Sampling Location**	**Air Volume (L)**	**Fungi on MEA @ 25º C**	***Stachybotrys chartarum* *** on CCA @ 25º C**
2-10-1	10th floor, room 10310	84.9	1. *Cladosporium* (1) CFU/m^3 = 12	Absence
2-10-2	10th floor, room 10347	84.9	No fungal growth CFU/m^3 < 12	Absence
2-10-3	10th floor, room 10376	84.9	No fungal growth CFU/m^3 < 12	Absence
2-10-4	10th floor, corridor near 10ME1	84.9	1. *Cladosporium* (1) CFU/m^3 = 12	Absence
2-9-1	9th floor, room 9328	84.9	No fungal growth CFU/m^3 < 12	Absence

2-9-2	9th floor, corridor near men's room	84.9	No fungal growth CFU/m^3 < 12	Absence
2-9-3	9th floor, room 9392	84.9	No fungal growth CFU/m^3 < 12	Absence
2-9-4	9th floor, corridor outside copy room	84.9	No fungal growth CFU/m^3 < 12	Absence
2-8-1	8th floor, outside room 8300	84.9	No fungal growth CFU/m^3 < 12	Absence
2-8-2	8th floor, corridor near 8322	84.9	No fungal growth CFU/m^3 < 12	Absence
2-8-3	8th floor, room 8370	84.9	No fungal growth CFU/m^3 < 12	Absence
2-8-4	8th floor, room 8403	84.9	No fungal growth CFU/m^3 < 12	Absence
2-7-1	7th floor, computer room	84.9	No fungal growth CFU/m^3 < 12	Absence
2-7-2	7th floor, computer console, top	84.9	No fungal growth CFU/m^3 < 12	Absence
2-7-3	7th floor, room 7428	84.9	No fungal growth CFU/m^3 < 12	Absence
2-7-4	7th floor, corridor opposite restrooms	84.9	No fungal growth CFU/m^3 < 12	Absence
2-6-1	6th floor, corridor near 6305	84.9	1. Basidiomycetes (1) CFU/m^3 = 12	Absence
2-6-2	6th floor, weather service computer	84.9	No fungal growth CFU/m^3 < 12	Absence
2-6-3	6th floor, weather service computer	84.9	No fungal growth CFU/m^3 < 12	Absence
2-6-4	6th floor, adjacent to mechanical room	84.9	No fungal growth CFU/m^3 < 12	Absence

Sample ID	**Sampling Location**	**Air Volume (L)**	**Fungi on MEA @ 25º C**	***Stachybotrys chartarum* *** on CCA @ 25º C**
2-5-1	5th floor, corridor adjacent to 5375	84.9	No fungal growth CFU/m^3 < 12	Absence
2-5-2	5th floor, room 5370	84.9	1. *Cladosporium* (1) CFU/m^3 = 12	Absence
2-5-3	5th floor, next to room 5426	84.9	No fungal growth CFU/m^3 < 12	Absence
2-5-4	5th floor, room 5432	84.9	No fungal growth CFU/m^3 < 12	Absence
2-4-1	4th floor, room 4305	84.9	No fungal growth CFU/m^3 < 12	Absence
2-4-2	4th floor, room 4338	84.9	1. *Cladosporium* (1) CFU/m^3 = 12	Absence

2-4-3	4th floor, room 4380	84.9	No fungal growth	Absence
2-4-4	4th floor, room 4403	84.9	CFU/m^3 < 12 No fungal growth	Absence
2-3-1	3rd floor, conference room 3300	84.9	CFU/m^3 < 12 No fungal growth	Absence
2-3-2	3rd floor, corridor near 3345	84.9	CFU/m^3 < 12 1. *Cladosporium* (1) 2. *Penicillium* (1) 3. Basidiomycetes (1)	Absence
2-3-3	3rd floor, room 3388	84.9	CFU/m^3 = 35 No fungal growth	Absence
2-3-4	3rd floor, corridor by 3ME1	84.9	CFU/m^3 < 12 1. *Cladosporium* (1)	Absence
2-2-1	2nd floor, conference center	84.9	CFU/m^3 = 12 1. Basidiomycetes (1)	Absence
2-2-2	2nd floor, break room 2311	84.9	CFU/m^3 = 12 1. Basidiomycetes (2)	Absence
2-2-3	2nd floor, corridor near 2ME1	84.9	CFU/m^3 = 24 1. *Aureobasidium* (1) 2. *Cladosporium* (1)	Absence
2-OA-3	Outside bldg. 2	84.9	CFU/m^3 = 24 1. *Cladosporium* (4) 2. *Alternaria* (1) 3. *Aspergillus sp.* (1) 4. *Aspergillus versicolor**** (1) 5. *Aureobasidium* (1) 6. *Epicoccum* (1) 7. Basidiomycetes (1) CFU/m^3 = 118	**Absence**

Sample ID	**Sampling Location**	**Air Volume (L)**	**Fungi on MEA @ 25º C**	***Stachybotrys chartarum* *** on CCA @ 25º C**
2-OA-1	Outside bldg. 2	28.3	1. *Cladosporium* (1) 2. *Nigrospora* (1) 3. sterile fungi (1) CFU/m^3 = 106	Absence
2-2-5	2nd floor, room 2115	84.9	No fungal growth CFU/m^3 < 12	Absence
2-2-6	2nd floor, outside room 2246	84.9	1. Basidiomycetes (1) CFU/m^3 = 12	Absence

2-3-5	3rd floor, room 3118	84.9	1. *Cladosporium* (1) 2. *Epicoccum* (1) 3. *Nigrospora* (1) CFU/m^3 = 35	Absence
2-3-6	3rd floor, room 3162	84.9	No fungal growth CFU/m^3 < 12	Absence
2-3-7	3rd floor, room 3210	84.9	1. *Cladosporium* (1) CFU/m^3 = 12	Absence
2-3-8	3rd floor, hallway outside 3246	84.9	1. *Aureobasidium* (1) CFU/m^3 = 12	Absence
2-4-5	4th floor, hall outside room 4246	84.9	No fungal growth CFU/m^3 < 12	Absence
2-4-6	4th floor, room 4220	84.9	1. yeast (1) CFU/m^3 = 12	Absence
2-4-7	4th floor, hallway outside room 4113	84.9	1. *Cladosporium* (2) CFU/m^3 = 24	Absence
2-4-8	4th floor, room 4466	84.9	No fungal growth CFU/m^3 < 12	Absence
2-5-5	5th floor, room 5226	84.9	No fungal growth CFU/m^3 < 12	Absence
2-5-6	5th floor, room 5115	84.9	1. *Penicillium* (1) CFU/m^3 = 12	Absence
2-5-7	5th floor, room 5154	84.9	1. *Aureobasidium* (1) CFU/m^3 = 12	Absence
2-5-8	5th floor, room 5102	84.9	No fungal growth CFU/m^3 < 12	Absence
2-6-7	6th floor, room 6129	84.9	No fungal growth CFU/m^3 < 12	**Absence**
2-6-8	6th floor, computer control	84.9	No fungal growth CFU/m^3 < 12	**Absence**
2-7-5	7th floor, room 7224	84.9	No fungal growth CFU/m^3 < 12	**Absence**

Sample ID	**Sampling Location**	**Air Volume (L)**	**Fungi on MEA @ 25º C**	***Stachybotrys chartarum* *** on CCA @ 25º C**
2-7-6	7th floor, room 7214	84.9	No fungal growth	Absence
2-7-7	7th floor, room 7136	84.9	CFU/m^3 < 12 1. *Epicoccum* (1)	Absence
2-7-8	7th floor, room 7468	84.9	CFU/m^3 = 12 1. *Aureobasidium* (1)	Absence
2-8-5	8th floor, room 8466	84.9	CFU/m^3 = 12 No fungal growth	Absence
2-8-6	8th floor, room 8113	84.9	CFU/m^3 < 12 1. yeast (1) CFU/m^3 = 12	Absence

2-8-7	8th floor, room 8230	84.9	No fungal growth	Absence
2-8-8	8th floor, outside room 8246	84.9	CFU/m^3 < 12 1. sterile fungi(1)	Absence
2-9-5	9th floor, room 9162	84.9	CFU/m^3 = 12 No fungal growth	Absence
2-9-6	9th floor, room 9177	84.9	CFU/m^3 < 12 No fungal growth	Absence
2-9-7	9th floor, room 9124	84.9	CFU/m^3 < 12 No fungal growth	Absence
2-9-8	9th floor, health station	84.9	CFU/m^3 < 12 1. *Paecilomyces* (1)	Absence
2-10-5	10th floor, room 10230	84.9	CFU/m^3 = 12 No fungal growth	Absence
2-10-6	10th floor, room 10204	84.9	CFU/m^3 < 12 1. *Cladosporium* (1)	Absence
2-10-7	10th floor, room 10109	84.9	CFU/m^3 = 12 No fungal growth	Absence
2-10-8	10th floor, room 10118	84.9	CFU/m^3 < 12 1. Basidiomycetes (1)	Absence
2-11-5	11th floor, room 11104	84.9	CFU/m^3 = 12 No fungal growth	Absence
2-11-6	11th floor, room 11172	84.9	CFU/m^3 < 12 No fungal growth	Absence
2-11-7	11th floor, room 11203	84.9	CFU/m^3 < 12 No fungal growth	Absence
2-11-8	11th floor, room 11246	84.9	CFU/m^3 < 12 No fungal growth	Absence
2-12-5	12th floor, hall outside 12103	84.9	CFU/m^3 < 12 No fungal growth	Absence

Sample ID	**Sampling Location**	**Air Volume (L)**	**Fungi on MEA @ 25º C**	***Stachybotrys chartarum* *** on CCA @ 25º C**
2-12-6	12th floor, room 12148	84.9	CFU/m^3 < 12 1. *Nigrospora* (1)	Absence
2-12-7	12th floor, room 12236	84.9	CFU/m^3 = 12 No fungal growth	Absence
2-12-8	12th floor, outside room 12246	84.9	CFU/m^3 < 12 No fungal growth	Absence
2-13-5	13th floor, room 13100	84.9	CFU/m^3 < 12 No fungal growth	Absence
2-13-6	13th floor, room 13121	84.9	CFU/m^3 < 12 1. *Cladosporium* (1)	Absence
2-13-7	13th floor, outside room 13220	84.9	CFU/m^3 = 12 No fungal growth	Absence
			CFU/m^3 < 12	

Sample ID	Sampling Location	Air Volume (L)	Fungi on MEA @ 25º C	*Stachybotrys chartarum* *** on CCA @ 25º C
2-13-8	13th floor, outside room 13242	84.9	No fungal growth	Absence
2-14-5	14th floor, outside room 14103	84.9	CFU/m^3 < 12 No fungal growth	Absence
2-14-6	14th floor, room 14140	84.9	CFU/m^3 < 12 No fungal growth	Absence
2-14-7	14th floor, outside room 14246	84.9	CFU/m^3 < 12 No fungal growth	Absence
2-14-8	14th floor, room 14200	84.9	CFU/m^3 < 12 No fungal growth	Absence
2-15-5	15th floor, room 15246	84.9	CFU/m^3 < 12 No fungal growth	Absence
2-15-6	15th floor, room 15203	84.9	CFU/m^3 < 12 No fungal growth	Absence
2-15-7	15th floor, room 15162	84.9	CFU/m^3 < 12 1. Ascomycetes (1)	Absence
2-15-8	15th floor, room 15106	84.9	CFU/m^3 = 12 1. *Cladosporium* (1)	Absence
2-16-5	16th floor, room 16208	84.9	CFU/m^3 = 12 No fungal growth	Absence
2-16-6	16th floor, room 16112	84.9	CFU/m^3 < 12 No fungal growth	Absence
2-16-7	16th floor, room 16150	84.9	CFU/m^3 < 12 No fungal growth	Absence
2-16-8	16th floor, room 16102	84.9	CFU/m^3 < 12 No fungal growth	Absence
2-17-5	17th floor, outside room 17103	84.9	CFU/m^3 < 12 No fungal growth	Absence
2-17-6	17th floor, room 17152	84.9	CFU/m^3 < 12 No fungal growth	Absence
2-17-7	17th floor, room 17201	84.9	CFU/m^3 < 12 No fungal growth	Absence
2-17-8	17th floor, room 17250	84.9	CFU/m^3 < 12 No fungal growth	Absence
2-18-5	18th floor, outside room 18122	84.9	CFU/m^3 < 12 No fungal growth	Absence
2-18-6	18th floor, near administration, outside 18150	84.9	CFU/m^3 < 12 No fungal growth	Absence
2-18-7	18th floor, room 18205	84.9	CFU/m^3 < 12 No fungal growth	**Absence**
2-18-8	18th floor, room 18246	84.9	CFU/m^3 < 12 1. *Mucor* (1)	**Absence**
SB	Shipping blank	NA#	CFU/m^3 = 12 No fungal growth	Absence

* Colony counts.

*** Toxigenic fungi.

\# Not applicable.